
REMEDIAL SITE ASSESSMENT DECISION – EPA Region 05

Site Name: MATHESON GAS PRODUCTS INC

Alias(es): MATHESON GAS PRODUCTS INC

City: JOLIET

County or Parish: WILL

State: IL

Refer to Report Dated: 01/28/2015

EPA ID: ILD148348287

Report Developed By: STATE

State ID:

Report Type: Site Reassessment (00X) #001

- ☒ 1. Further Remedial Site Assessment Under CERCLA (Superfund) is not required because:
NFRAP-Site does not qualify for the NPL based on existing information

☐ 2. Further Assessment Needed Under CERCLA.

☐ 3. Remedial study/cleanup needed.

Decision/Rationale:

The U.S. Environmental Protection Agency (EPA) has determined that no further remedial action by the Federal Superfund program is warranted at the referenced site, at this time. The basis for the no further remedial action planned (NFRAP) determination is provided in the attached document. A NFRAP designation means that no additional remedial steps under the Federal Superfund program will be taken at the site unless new information warranting further Superfund consideration or conditions not previously known to EPA regarding the site are disclosed. In accordance with EPA's decision regarding the tracking of NFRAP sites, the referenced site may be removed from the CERCLIS database and placed in a separate archival database as a historical record if no further Superfund interest is warranted. Archived sites may be returned to the CERCLIS site inventory if new information necessitating further Superfund consideration is discovered.

Decision/Rationale (Continued):

Site Decision Made By: Patrick Hamblin, NPL Coordinator

Signature: David M. Brainer for PH

Date: 02/10/2015

LPC# 1970450022 Will County
Matheson Gas Products, Inc.
ILD 148 348 287
SF/HRS
CONFIDENTIAL

Site Reassessment QUICKSCORE



Prepared by:
Office of Site Evaluation
Division of Remediation Management
Bureau of Land

****** CONFIDENTIAL ******
******PRE-DECISIONAL DOCUMENT ******
****** SUMMARY SCORESHEET ******
****** FOR COMPUTING PROJECTED HRS SCORE ******

****** Do Not Cite or Quote ******

Site Name: Matheson Gas Products Inc Region: Region 5

Scenario Name: Matheson Gas Site
Reassment

City, County, State: Joliet/Will, Illinois Evaluator: Dave Reed

EPA ID#: ILD148348287 Date: 02/14/2014

Lat/Long: 41:29:59,-88:4:35

Congressional District:

This Scoresheet is for: Other

Scenario Name: Matheson Gas Site Reassment

Description:

	S pathway	S ² pathway
Ground Water Migration Pathway Score (S _{gw})	8.1	65.61
Surface Water Migration Pathway Score (S _{sw})	0.0	0.0
Soil Exposure Pathway Score (S _s)	0.61	0.37
Air Migration Score (S _a)	2.16	4.67
$S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$		70.65
$(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$		17.66
$/ (S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$		4.2

Pathways not assigned a score (explain):

TABLE 3-1 --GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Aquifer Evaluated: 1		
Likelihood of Release to an Aquifer:		
1. Observed Release	550	0.0
2. Potential to Release:		
2a. Containment	10	10.0
2b. Net Precipitation	10	3.0
2c. Depth to Aquifer	5	5.0
2d. Travel Time	35	5.0
2e. Potential to Release [(lines 2a(2b + 2c + 2d)]	500	130.0
3. Likelihood of Release (higher of lines 1 and 2e)	550	130.0
Waste Characteristics:		
4. Toxicity/Mobility	(a)	100.0
5. Hazardous Waste Quantity	(a)	100.0
6. Waste Characteristics	100	10.0
Targets:		
7. Nearest Well	(b)	50.0
8. Population:		
8a. Level I Concentrations	(b)	0.0
8b. Level II Concentrations	(b)	0.0
8c. Potential Contamination	(b)	464.0
8d. Population (lines 8a + 8b + 8c)	(b)	464.0
9. Resources	5	0.0
10. Wellhead Protection Area	20	0.0
11. Targets (lines 7 + 8d + 9 + 10)	(b)	514.0
Ground Water Migration Score for an Aquifer:		
12. Aquifer Score [(lines 3 x 6 x 11)/82,500] ^c	100	8.1
Ground Water Migration Pathway Score:		
13. Pathway Score (S_{gw}), (highest value from line 12 for all aquifers evaluated) ^c	100	8.1

^a Maximum value applies to waste characteristics category

^b Maximum value not applicable

^c Do not round to nearest integer

TABLE 4-1 --SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Watershed Evaluated: One		
Drinking Water Threat		
Likelihood of Release:		
1. Observed Release	550	0.0
2. Potential to Release by Overland Flow:		
2a. Containment	10	9.0
2b. Runoff	10	1.0
2c. Distance to Surface Water	5	25.0
2d. Potential to Release by Overland Flow [(lines 2a(2b + 2c)]	35	234.0
3. Potential to Release by Flood:		
3a. Containment (Flood)	10	9.0
3b. Flood Frequency	50	7.0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0.0
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	234.0
5. Likelihood of Release (higher of lines 1 and 4)	550	234.0
Waste Characteristics:		
6. Toxicity/Persistence	(a)	10000.0
7. Hazardous Waste Quantity	(a)	10.0
8. Waste Characteristics	100	18.0
Targets:		
9. Nearest Intake	50	0.0
10. Population:		
10a. Level I Concentrations	(b)	0.0
10b. Level II Concentrations	(b)	0.0
10c. Potential Contamination	(b)	0.0
10d. Population (lines 10a + 10b + 10c)	(b)	0.0
11. Resources	5	0.0
12. Targets (lines 9 + 10d + 11)	(b)	0.0
Drinking Water Threat Score:		
13. Drinking Water Threat Score [(lines 5x8x12)/82,500, subject to a max of 100]	100	0.0
Human Food Chain Threat		
Likelihood of Release:		
14. Likelihood of Release (same value as line 5)	550	234.0
Waste Characteristics:		
15. Toxicity/Persistence/Bioaccumulation	(a)	5.0E8
16. Hazardous Waste Quantity	(a)	10.0
17. Waste Characteristics	1000	180.0
Targets:		
18. Food Chain Individual	50	0.0
19. Population		
19a. Level I Concentration	(b)	0.0
19b. Level II Concentration	(b)	0.0
19c. Potential Human Food Chain Contamination	(b)	0.0
19d. Population (lines 19a + 19b + 19c)	(b)	0.0
20. Targets (lines 18 + 19d)	(b)	0.0
Human Food Chain Threat Score:		
21. Human Food Chain Threat Score [(lines 14x17x20)/82500, subject to max of 100]	100	0.0
Environmental Threat		
Likelihood of Release:		
22. Likelihood of Release (same value as line 5)	550	234.0
Waste Characteristics:		
23. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	5000.0
24. Hazardous Waste Quantity	(a)	10.0
25. Waste Characteristics	1000	10.0

Targets:

26. Sensitive Environments		
26a. Level I Concentrations	(b)	0.0
26b. Level II Concentrations	(b)	0.0
26c. Potential Contamination	(b)	0.0
26d. Sensitive Environments (lines 26a + 26b + 26c)	(b)	0.0
27. Targets (value from line 26d)	(b)	0.0

Environmental Threat Score:

28. Environmental Threat Score [(lines 22x25x27)/82,500 subject to a max of 60]	60	0.0
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Surface Water Overland/Flood Migration Component Score for a Watershed

29. Watershed Score ^c (lines 13+21+28, subject to a max of 100)	100	0.00
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Surface Water Overland/Flood Migration Component Score

30. Component Score (S_{sw}) ^c (highest score from line 29 for all watersheds evaluated)	100	0
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^a Maximum value applies to waste characteristics category

^b Maximum value not applicable

^c Do not round to nearest integer

TABLE 4-25 --GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Watershed Evaluated: One		
Drinking Water Threat		
Likelihood of Release to an Aquifer:		
1. Observed Release	550	550.0
2. Potential to Release:		
2a. Containment	10	10.0
2b. Net Precipitation	10	3.0
2c. Depth to Aquifer	5	5.0
2d. Travel Time	35	5.0
2e. Potential to Release [(lines 2a(2b + 2c + 2d)]	500	130.0
3. Likelihood of Release (higher of lines 1 and 2e)	550	550.0
Waste Characteristics:		
4. Toxicity/Mobility	(a)	100.0
5. Hazardous Waste Quantity	(a)	10.0
6. Waste Characteristics	100	6.0
Targets:		
7. Nearest Well	(b)	0.0
8. Population:		
8a. Level I Concentrations	(b)	0.0
8b. Level II Concentrations	(b)	0.0
8c. Potential Contamination	(b)	0.0
8d. Population (lines 8a + 8b + 8c)	(b)	0.0
9. Resources	5	0.0
10. Targets (lines 7 + 8d + 9)	(b)	0.0
Drinking Water Threat Score:		
11. Drinking Water Threat Score [(lines 3 x 6 x 10)/82,500, subject to max of 100]	100	0.0
Human Food Chain Threat		
Likelihood of Release:		
12. Likelihood of Release (same value as line 3)	550	550.0
Waste Characteristics:		
13. Toxicity/Mobility/Persistence/Bioaccumulation	(a)	0.0
14. Hazardous Waste Quantity	(a)	10.0
15. Waste Characteristics	1000	0.0
Targets:		
16. Food Chain Individual	50	0.0
17. Population		
17a. Level I Concentration	(b)	0.0
17b. Level II Concentration	(b)	0.0
17c. Potential Human Food Chain Contamination	(b)	0.0
17d. Population (lines 17a + 17b + 17c)	(b)	0.0
18. Targets (lines 16 + 17d)	(b)	0.0
Human Food Chain Threat Score:		
19. Human Food Chain Threat Score [(lines 12x15x18)/82,500, subject to max of 100]	100	0.0
Environmental Threat		
Likelihood of Release:		
20. Likelihood of Release (same value as line 3)	550	550.0
Waste Characteristics:		
21. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	0.0
22. Hazardous Waste Quantity	(a)	10.0
23. Waste Characteristics	1000	0.0
Targets:		
24. Sensitive Environments		
24a. Level I Concentrations	(b)	0.0
24b. Level II Concentrations	(b)	0.0

24c. Potential Contamination	(b)	0.0	
24d. Sensitive Environments (lines 24a + 24b + 24c)	(b)	0.0	
25. Targets (value from line 24d)	(b)		0.0
Environmental Threat Score:			
26. Environmental Threat Score [(lines 20x23x25)/82,500 subject to a max of 60]	60		0.0
Ground Water to Surface Water Migration Component Score for a Watershed			
27. Watershed Score ^c (lines 11 + 19 + 28, subject to a max of 100)	100		0.0
28. Component Score (S _{gs}) ^c (highest score from line 27 for all watersheds evaluated, subject to a max of 100)	100		0.0

^a Maximum value applies to waste characteristics category

^b Maximum value not applicable

^c Do not round to nearest integer

TABLE 5-1 --SOIL EXPOSURE PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Likelihood of Exposure:		
1. Likelihood of Exposure	550	550.0
Waste Characteristics:		
2. Toxicity	(a)	10000.0
3. Hazardous Waste Quantity	(a)	10.0
4. Waste Characteristics	100	18.0
Targets:		
5. Resident Individual	50	
6. Resident Population:		
6a. Level I Concentrations	(b)	0
6b. Level II Concentrations	(b)	
6c. Population (lines 6a + 6b)	(b)	
7. Workers	15	5.0
8. Resources	5	0.0
9. Terrestrial Sensitive Environments	(c)	
10. Targets (lines 5 + 6c + 7 + 8 + 9)	(b)	5.0
Resident Population Threat Score		
11. Resident Population Threat Score (lines 1 x 4 x 10)	(b)	49500.0
Nearby Population Threat		
Likelihood of Exposure:		
12. Attractiveness/Accessibility	100	10.0
13. Area of Contamination	100	20.0
14. Likelihood of Exposure	500	5.0
Waste Characteristics:		
15. Toxicity	(a)	10000.0
16. Hazardous Waste Quantity	(a)	10.0
17. Waste Characteristics	100	18.0
Targets:		
18. Nearby Individual	1	1.0
19. Population Within 1 Mile	(b)	7.0
20. Targets (lines 18 + 19)	(b)	8.0
Nearby Population Threat Score		
21. Nearby Population Threat (lines 14 x 17 x 20)	(b)	720.0
Soil Exposure Pathway Score:		
22. Pathway Score ^d (S _s), [(lines (11+21)/82,500, subject to max of 100]	100	0.61

^a Maximum value applies to waste characteristics category

^b Maximum value not applicable

^c No specific maximum value applies to factor. However, pathway score based solely on terrestrial sensitive environments is limited to a maximum of 60

^d Do not round to nearest integer

TABLE 6-1 --AIR MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Likelihood of Release:		
1. Observed Release	550	0.0
2. Potential to Release:		
2a. Gas Potential to Release	500	450.0
2b. Particulate Potential to Release	500	
2c. Potential to Release (higher of lines 2a and 2b)	500	450.0
3. Likelihood of Release (higher of lines 1 and 2c)	550	450.0
Waste Characteristics:		
4. Toxicity/Mobility	(a)	200.0
5. Hazardous Waste Quantity	(a)	10.0
6. Waste Characteristics	100	6.0
Targets:		
7. Nearest Individual	50	20.0
8. Population:		
8a. Level I Concentrations	(b)	0.0
8b. Level II Concentrations	(b)	0.0
8c. Potential Contamination	(c)	46.0
8d. Population (lines 8a + 8b + 8c)	(b)	46.0
9. Resources	5	0.0
10. Sensitive Environments:		
10a. Actual Contamination	(c)	0.0
10b. Potential Contamination	(c)	0.0
10c. Sensitive Environments (lines 10a + 10b)	(c)	0.0
11. Targets (lines 7 + 8d + 9 + 10c)	(b)	66.0
Air Migration Pathway Score:		
12. Pathway Score (S_a) $[(\text{lines } 3 \times 6 \times 11)/82,500]^d$	100	2.16

^a Maximum value applies to waste characteristics category

^b Maximum value not applicable

^c No specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a maximum of 60.

^d Do not round to nearest integer

SCRATCH PAD NOTES:

PATHWAY/SOURCES: AIR

PATHWAY/SOURCES: AREA OF CONTAMINATION (AOC) INFORMATION

PATHWAY/SOURCES: GROUND WATER

Scoresheet Line#: 4

Notes: Antimony was used for this calculation

Documentation:

Scoresheet Line#: 8c

Notes: This number was calculated by finding the population for each distance ring segment, finding the corresponding value on the table, and adding the results to get 4,640. That number was then automatically multiplied by 0.1 in the Quickscore software.

Documentation:

PATHWAY/SOURCES: GROUND WATER TO SURFACE WATER – DRINKING WATER

PATHWAY/SOURCES: GROUND WATER TO SURFACE WATER – ENVIRONMENTAL

PATHWAY/SOURCES: GROUND WATER TO SURFACE WATER – HUMAN FOOD CHAIN

PATHWAY/SOURCES: SOIL EXPOSURE – RESIDENTIAL POPULATION THREAT

PATHWAY/SOURCES: SOIL EXPOSURE – NEARBY POPULATION THREAT

PATHWAY/SOURCES: SITE SCENARIO INFORMATION

PATHWAY/SOURCES: SOURCES

PATHWAY/SOURCES: SURFACE WATER OVERLAND - DRINKING WATER

PATHWAY/SOURCES: SURFACE WATER OVERLAND – ENVIRONMENTAL

PATHWAY/SOURCES: SURFACE WATER OVERLAND - HUMAN FOOD CHAIN